

REMARKS

The Final Office Action mailed December 7, 2009, has been received and reviewed. Claims 1-8, 10-17, 19-46, 48-55, 57-70, and 73 are pending in the subject application. All pending claims stand rejected under 35 U.S.C. § 112 and under 35 U.S.C. §103(a). To address these rejections, each of claims 1, 15, 17, 26, 29, 35, 41, 48, 57, 61, 64, and 73 are amended, as set forth herein. Claims 1-8, 10-17, 19-46, 48-55, 57-70, and 73 will remain pending. It is submitted that no new matter has been added by way of the present proposed amendments. Reconsideration of the subject application is respectfully requested in view of the proposed amendments and the following remarks.

Claim Objections

Claims 1, 15, 41, 61, and 64 are objected to by the Office, as the Office contends that typographical errors exist. These claims are amended to resolve the Office-indicated errors per the suggestions listed in the Final Office Action.

Rejections based on 35 U.S.C. § 112

Claims 1-8, 10-17, 19-46, 48-55, 57-70, and 73 stand rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Specifically, the Office contends it is unclear what occurs in the alternative of when a match exists. In response, each of claims 1, 17, 29, 35, 48, 57, and 73 is amended to replace the term “whether” with “that,” and to remove the clause “when a match is determined to exist.” As such, the indefiniteness of these rejected claims is considered to be resolved, and it is asserted that claims 1-8, 10-17, 19-46, 48-55, 57-70, and 73 are in condition for allowance.

Rejections based on 35 U.S.C. § 103

A.) Applicable Authority

Title 35 U.S.C. § 103(a) declares, a patent shall not issue when “the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains.” The Supreme Court in Graham v. John Deere counseled that an obviousness determination is made by identifying: the scope and content of the prior art; the level of ordinary skill in the prior art; the differences between the claimed invention and prior art references; and secondary considerations.¹ To support a finding of obviousness, the initial burden is on the Office to apply the framework outlined in Graham and to provide some reason, suggestion, or motivation, found either in the prior art references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the prior art reference or to combine prior art reference teachings to produce the claimed invention.² Recently, the Supreme Court elaborated, at pages 13-14 of the *KSR* opinion, that “it will be necessary for [the Office] to look at interrelated teachings of multiple [prior art references]; the effects of demands known to the design community or present in the marketplace; and the background knowledge possessed by [one of] ordinary skill in the art, all in order to determine whether there was an apparent reason to combine the known elements in the fashion claimed by the [patent application].”³

B.) Obviousness Rejection Based Upon U.S. Publication No. 2004/0098286 to Zimmerman et al. in View of U.S. Publication No. 2002/0095323 to Haq in Further View of U.S. Patent No. 5,842,173 to Strum et al.

¹ *Graham v. John Deere Co.*, 383 U.S. 1 (1966).

² *See, Application of Bergel*, 292 F. 2d 955, 956-957 (1961).

³ *KSR v. Teleflex*, No. 04-1350, 127 S.Ct. 1727 (2007).

Claims 1-8, 10-16, 25, 37, 59, and 70 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Zimmerman et al.⁴ (hereinafter Zimmerman) in view of Haq,⁵ and in further view of Strum et al.⁶ (hereinafter Strum). As the Zimmerman, Haq, and Strum references do not describe, either expressly or inherently, each and every element of amended independent claim 1, or the claims that depend therefrom, Applicants respectfully consider the pending rejection of these claims overcome, as hereinafter set forth.

Independent claim 1, as amended hereinabove, recites, in part, the following steps: (a) “receiving a selection of the person [patient] from a list of patients displayed at a user interface window,” where “the list of patients is extracted from patient-procedure entries stored in a unified healthcare network,” and where “the patient-procedure entries associate the person with a medical procedure;” (b) “*utilizing the medical procedure associated with the selected person to interact with one or more pre-built medication-procedure tables;*” and, (c) based on the interaction, “accessing a list of possible medications, *and dosages* thereof, that are to be administered to the person for the medical procedure” (emphasis added). In this way, a medical procedure is initially selected to inspect the tables to find medications and dosages to be administered to the subject patient upon administering the selected medical procedure.

As a threshold matter, Applicants respectfully note that each of the 35 U.S.C. § 103(a) rejections asserted in the Final Office Action rely on Zimmerman as the primary reference. Based on the earlier effective filing date of November 14, 2002, the Zimmerman reference constitutes prior art only under 35 U.S.C. § 102(e). “Subject matter developed by another person, which qualifies as prior art only under one or more of the subsections (e), (f), and (g) of Section 102 of this title, shall not preclude patentability under this section where the

⁴ U.S. Publication No. 2004/0098286.
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subject matter and the claimed invention were, at the time the invention was made, owned by the same person or subject to an obligation of assignment to the same person.”⁷ In this instance, the Zimmerman reference is assigned to the Cerner Innovation, Inc., and the invention included in the present application was, at the time the claimed invention was made, subject to an obligation of assignment to the Cerner Innovation, Inc. Because the conditions above are met, the Zimmerman reference is disqualified as a reference under 35 U.S.C. § 103(c) and cannot preclude patentability. Accordingly, Applicants respectfully submit that the 35 U.S.C. § 103(a) rejection of all pending claims is overcome.

With respect to independent claim 1, Haq and Strum in combination do not teach “utilizing the medical procedure associated with the selected person to interact with one or more pre-built medication-procedure tables.” As such, the combination of Haq and Strum fails to cure the deficiencies generated by disqualifying Zimmerman. Consequently, for at least the reasons stated above, Applicants assert that independent claim 1 is in condition for allowance, and that the rejection thereof under §103 is overcome and should be withdrawn. Each of claims 2-8 and 10-16, which depend from amended claim 1, are submitted to be allowable, at a minimum, by virtue of their dependence from an allowable base claim.⁸

C.) Obviousness Rejection Based Upon Zimmerman in View of Haq

Claims 17, 19-24, 26, 27, 29, 31-36, 38-44, 46, 48-53, 55, 57, 58, 60-69, and 73 stand rejected under 35 U.S.C. § 103(a) as being obvious over Zimmerman in view of Haq. As discussed above, the Zimmerman reference is disqualified under § 103(c) and cannot be employed to form an obvious-type rejection.

⁵ U.S. Publication No. 2002/0095313.

⁶ U.S. Patent No. 5,842,173.

⁷ 35 U.S.C. § 103(c)(1).

⁸ See 37 C.F.R. § 1.75(c) (2006).

Independent claims 17, 35, and 57 provide separate drug-drug and drug-food association tables that interact with (a) information in the EMR, and (b) selected medications in the medication list that relate to the medical procedure scheduled for the person. In this way, there are the different sources of information involved in the matching process, as discussed in the Examiner Interview. Further, each of claims 17, 35, and 57 recite matching “a universal set of medications that are particularly dangerous when administered in a variety of medical procedures.”

Haq does teach checking for drug-drug interactions at paragraph [0095] and checking for drug-food interactions at paragraph [0100] using the drugs prescribed to the patient or the drugs that a patient is taking. But, Haq does not consider inserting into the comparison drugs that are not necessarily prescribed to the patient, yet are deemed particularly dangerous.

As such, Haq fails to cure the deficiencies generated by disqualifying Zimmerman. Consequently, for at least the reasons stated above, Applicants assert that independent claims 17, 35, and 57 are in condition for allowance, and that the rejections thereof under §103 are overcome and should be withdrawn. Each of claims 17, 19-24, 26, 27, 36, 38-44, 46, 57, 58, and 60-69, which depend from one of amended claims 17, 35, and 57, respectively, are submitted to be allowable, at a minimum, by virtue of their dependence from an allowable base claim.⁹

Independent claims 29, 48, and 73, as amended herein, recite, at least, the following functionality:

- “generating an alert box for each match, wherein the alert box includes an indication of the selected medication from the medication list that is involved in the

match and a predicted severity of adverse affects that result from administering the matching selected medication, *wherein the predicted severity is based on the dosage of the selected matching medication, and the age and the weight of the person receiving the medical procedure;*” and

- “outputting a response to a window on a display device, wherein the response includes presenting the alert box for each match within the window, and *wherein the predicted severity for each match is presented as a graphical symbol that represents at least one of mild severity, moderate severity, or severe severity*” (emphasis added).

In this way, the “predicted severity” is calculated based on at least three criteria:

(a) the dosage of the selected matching medication; (b) the age of the person receiving the medical procedure, and (c) the weight of the person receiving the medical procedure. Further, the predicted severity is presented on a display device in a very specific manner. That is, (i) the predicted severity for each match is presented, (ii) the predicted severity is presented as a graphical symbol, and (iii) the graphical symbol represents mild severity, moderate severity, or severe severity.

Haq does not teach a predicted severity that is calculated with criteria (a) – (c) or that is presented with the features (i) – (iii). Instead, Haq teaches generating an alarm if there exists an interaction,¹⁰ and yellow and red alert areas on a screen.¹¹ The colored alert areas are not graphical symbols of a predicted severity that is calculated via the criteria (a) – (c) above. Further, the colored areas are not provided for each match, but just those interactions that require close monitoring or correspond to a major adverse affect.

⁹See 37 C.F.R. § 1.75(c) (2006).

¹⁰ Haq at ¶ [0100].

¹¹ *Id.* at ¶ [0112].

As such, Haq fails to cure the deficiencies generated by disqualifying Zimmerman. Consequently, for at least the reasons stated above, Applicants assert that independent claims 29, 48, and 73 are in condition for allowance, and that the rejections thereof under §103 are overcome and should be withdrawn. Each of claims 31-34, 49-53, and 55, which depend from one of amended claims 29 and 48, respectively, are submitted to be allowable, at a minimum, by virtue of their dependence from an allowable base claim.¹²

D.) Obviousness Rejection Based Upon Zimmerman in View of Haq in Further View of U.S. Patent No. 6,317,719 to Schrier et al.

Claims 28, 30, 45, and 54 stand rejected over Zimmerman in view of Haq in further view of Schrier et al.¹³ (hereinafter Schrier). Claims 28, 30, 45, and 54 are dependent claims that depend from independent claims 17, 30, 45, and 54, respectively. As discussed above, the combination of Zimmerman (disqualified) and Haq fails to teach each and every element of claims 17, 30, 45, and 54, as amended hereinabove. Schrier is cited for teaching the feature of modifying a medication list upon comparing the medication list to a patient's EMR. This cited feature fails to cure the deficiencies of Haq. For at least this reason, independent claims 17, 30, 45, and 54 are not obvious in light of the combination of Haq and Schrier, and, accordingly, neither are claims 28, 30, 45, and 54 that depend therefrom.

¹² See 37 C.F.R. § 1.75(c) (2006).

¹³ U.S. Patent No. 6,317,719.

CONCLUSION

For at least the reasons stated above, upon entry of the proposed amendments, it is believed that claims 1-8, 10-17, 19-46, 48-55, 57-70, and 73 will be in condition for allowance. As such, Applicants respectfully request entry of the proposed amendments, withdrawal of the pending rejections and allowance of the claims. If any issues remain that would prevent issuance of this application, the Examiner is urged to contact the undersigned – 816-474-6550 or btabor@shb.com (such communication via email is herein expressly granted) – to resolve the same.

Request for Continued Examination and One Month Extension of Time fees are submitted herewith. It is believed that no additional fee is due, however, the Commissioner is hereby authorized to charge any amount required to Deposit Account No. 19-2112, referencing attorney docket number CRNL110414.

Respectfully submitted,

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